AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A home appliance control system, comprising:

an external Internet network installed outside of a building;

an internal network installed inside of the building and connected to said external Internet network via networking equipment;

a plurality of home appliances installed in the building;

a computing device that sets private Internet protocol (IP) addresses and port numbers of said home appliances such that said appliances are connected to said internal network based on the set private IP addresses and port numbers, said computing device having a public IP address that enables access from said external Internet network; and

a plurality of communication modules, each of said communication modules corresponding to one of said home appliances and storing the private IP address and port number of the corresponding one of said home appliances, set by said computing device, and processing data transmitted and received between said internal network and said corresponding home appliance to standards of said internal network and said corresponding home appliance.

2. (Canceled).

3. (Previously Presented) The home appliance control system as set forth in claim 1, wherein each of said communication modules include:

a data storage unit that stores the set private IP address and port number of said corresponding home appliance;

an interface storage unit that stores a user interface appropriate to a control and state observation of said corresponding home appliance having said private IP address and port number stored in said data storage unit; and

a data processor that converts and processes data transmitted and received between said internal network and a main controller of said corresponding home appliance appropriately to standards of said internal network and main controller.

4. (Original) The home appliance control system as set forth in claim 3, wherein said user interface stored in said interface storage unit is configured to be sent to said computing device such that a user controls said corresponding home appliance through said computing device.

5. (Original) The home appliance control system as set forth in claim 4, wherein said user interface stored in said interface storage unit includes a Java program executable in said computing device.

6. (Previously Presented) The home appliance control system as set forth in claim 4, wherein said user interface stored in said interface storage unit includes a Java

program executable in a personal computer of a user when the user gains access to said computing device through said external Internet network.

7. (Currently Amended) A method for controlling home appliances, comprising:

installing a plurality of communication modules in the home appliances, each of the communication modules storing a set private IP address and port number of a corresponding one of the home appliances and processing data transmitted and received between an internal network of a building in which the home appliances are installed and the corresponding home appliance to standards of the internal network and the corresponding home appliance;

setting the private IP addresses and port numbers of the home appliances with a ~~control~~ computing device that has a public IP address that enables access from an external Internet network; and

controlling each of the home appliances with the set private IP addresses and port numbers through a user interface.

8. (Previously Presented) The method as set forth in Claim 7, further comprising:

determining whether a user has a code valid to control a specific home appliance when the user desires to gain access to control the specific home appliance;

whereby the user selectively controls the home appliances through the user interface only when the user has the valid code.

9. (Previously Presented) The method as set forth in Claim 7, further comprising:

connecting the home appliances to the internal network if the private IP addresses and port numbers of the home appliances are set; and

determining whether the home appliances have been connected to the internal network.

10. (Previously Presented) The method as set forth in Claim 7, wherein controlling the home appliances through the user interface comprises:

storing the user interface appropriate to the appliance control in each of the home appliances and sending the stored user interface to a user desiring the appliance control, such that the user interface is executed by the user.

11. (Previously Presented) The method as set forth in Claim 10, wherein controlling the home appliances through the user interface further comprises:

determining whether a private IP address and port number contained in home appliance control information inputted through the user interface corresponds to the set private IP address and port number of each of the home appliances;

transferring a user's control command inputted through the user interface to a specific home appliance when the private IP address and port number of the control information corresponds to the set private IP address and port number of the specific home appliance; and

controlling only the specific home appliance in response to the transferred control command.